

AN
ESSAY
ON
DRAINING:

More Particularly with Regard to the
NORTH DIVISION
OF THE
Great Level *of the Fenns,*
CALL'D,
BEDFORD LEVEL.



a. 3659.

L O N D O N:

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A N
E S S A Y
O N
DRAINING.



I N Treating of the Outfall
for the Waters of *Bedford*
North Level, I shall first
shew the Weakness and In-
sufficiency of the Reason that is so gene-
rally assign'd for the Loss of such Out-
fall ; and, in the next Place, recommend
to the Consideration of others, what
appears to me to be the true, genuine and
proper Cause of this Loss, so extensive
in its Consequences, and which for many

Years past, has been almost as totally neglected, as it has been universally deplor'd : Which also will at once discover what is the only solid, certain, and effectual Method, for recovering the said Outfall, and delivering the Country, in good Earnest, from the unspeakable Hardships they have so long suffer'd by the Want of it.

THE Reason, which many People give, for the Decay of the *North Level* Outfall, is the Embanking of certain Marshes, that heretofore lay open to the Channel or River of *Wisbech* : By which Means, say they, not only the Indraght of the Tides is lessened, but the Channel is moreover deprived of a Back-Water, which, on the Reflux of the Tides, used to fall into it from several small Creeks, or rather Furrows, in those Marshes, drive out all Sands and Obstructions, and send them packing to the Sea.

BUT if the Virtue of these Marsh Waters were really such, and so great, as their Advocates have daily the Face to assert ;

assert ; How came it that the obsequious retiring Sands took such Heart and Courage, and at last so effectually prevailed, as to raise those Marshes above the Flow and Reach of ordinary Tides ? Was it not this, humanly speaking, which first gave Rise and Encouragement to Embanking ? Or who can justly blame Men, if they are willing to take in and secure to themselves, what is already, in a manner, yielded up to them by the Sea ? Here then this Matter must unavoidably rest ; Embanking is not the Cause, but the Effect, of the now aspiring Sands.

I come now to speak of what most evidently appears to me, to be the true and proper Cause of the great Increase of Sands in the said Channel or Outfall, so eminently destructive of those two sincere and approv'd Friends to each other, whose real Interests are inseparable, Draining and Navigation. But how discouraging, how dreadful is the Task I have undertaken ! What Hope, what imaginable Hope of Pardon can remain, while I directly charge this Ruin, as of

Necessity

Necessity I must, upon a Work which bears the Name of a Right Reverend Prelate, its Author, *Morton*, Bishop of *Ely*, and is said to have been perform'd in the Reign of King *Henry* the Seventh; a Work at this Day so furiously applauded by the *Fenn* People, a heavy, but most obstinate and implacable Race of Men; that a Man might, on a fitting Opportunity, very reasonably expect to be *De-Witted* by those Barbarians, merely for being thought a little disaffected to that miraculous Undertaking !

YET, embolden'd by Truth, spurr'd on also by my Zeal for the Publick Good, regardless of my own particular Safety, I must and will averr, *Hinc illæ Lachrymæ* ! Behold here, the true Source and Spring of the before-mention'd Calamity ! for while the Land-Floods continued their old embanked, tho' winding Course, by the River *Nene*, down to the Outfall at *Wisbech*, they held together in a Body, that with an irresistible Force and Weight bore down the Sands before them, and commanded their

Passage

Passage to the Sea. And notwithstanding it may be true, that upon great and uncommon Floods, the River *Nene*, sometimes broke out and overflow'd the adjacent Lands, occasion'd by the not keeping up good and sufficient Banks ; a Neglect, which I will venture to pronounce the most pestilent, unerring Bane, of sound Draining ; yet then the Oppression did not continue, as now it usually does, for many Months together, I had almost said Years, but was soon commanded away by the undisputed Power and Authority of a good Outfall.

At length, this Business of Banking grew so excessively odious, that it was no longer to be endured : So the Waters were order'd into another, and very different, Channel, provided for them, by the foremention'd Bishop, called *Morton's Leam*, being without any Banks at all, excepting such only, as are interven'd by a Space, the *Fenmen* stile the *Wash*, generally about two Miles, and no where less than a Mile in Breadth. This *Wash* is commended, even
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to Madness, by those senseless People, as a most commodious Receptacle, of indispensable Use and Benefit, excellently well fitted to receive and entertain the Fresh-Water Floods, till they can be discharg'd by the Outfall to Sea ! but mark the Consequence of all this : Did not these Floods, thus well receiv'd and amply entertain'd, grow idle and useless ? Did they not lazily glide away towards the Outfall, in a slow unwilling Stream, thereby inviting, as it were, the Sands to settle there, and barr up their Passage to the Sea ? Have not these Floods, after they had thus manifestly shut the Door upon themselves, wax'd so insufferably wanton, upon their long and generous Entertainment, as frequently to treat their Host, the Receptacle, in a very rude and indecent Manner, break down the Walls, or Banks, and cover the Country round with Ruin and Desolation ? These are Truths too intimately known, and too severely felt, to admit of any plain and serious Denial : Nor is it less certain and undeniable, that, without some Weight, some united

united Power of Water, able to bear down the Sands, and maintain a free and deep Channel below *Wisbech*, the Bed or Bottom of that Channel, in the whole Way to the Sea, will, in no long Time, be rais'd above the Surface of all that vast *Level*, which drains into it now, tho' in a very precarious and imperfect Manner, and will then, indeed, be totally and irretrievably lost to the Proprietors and the Publick for ever.

To put some Stop to the Growth of this threatening Evil, some Methods, not wholly unsuccessful, have lately been attempted: Such, as constituting a Reservoir at the End of the Shire Drain, into which the Tides are received out of *Wisbech* Channel, by a Sluice called *Gunthorp's* Sluice, and are, on re-opening the same, discharged back again with very great Rapidity, when it is Low Water. In this Reservoir, being a Mile in Length, and about Seventy Yards in Breadth, is contain'd a Head of Water,

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on the smallest Tides, Six or Seven, and, on some great Tides, Ten Feet higher than Low Water Mark in the Channel without. Also by another, call'd *Hill's* Sluice, which is placed at the upper End of this Bason or Reservoir, the Freshes, in the Shire Drain, are held up and let off with a Fall and Force sufficient to cleanse the Reservoir, and carry out what Silt or Sand may have been dropp'd and left there by the Tide-Waters in their Return to the Sea. Add to this, the Cleansing and Deepning a great Part of the Shire Drain, by which Means the Waters are more swiftly and entirely convey'd to the Outfall at *Gunthorp's* Sluice. That these Methods have been attended with some considerable Success, is, beyond all Contradiction, prov'd by the now hopeful Condition of the said Outfall, compar'd with the wretched undone State of it but a very few Years since.

AND thus much I thought it just and necessary to observe concerning the Works

Works of that very worthy and ingenious Gentleman *Humphry Smith*, Esq; who, being put into the Direction of the *Fenns*, has, in the Space of two or three Years, not to liken him to another great Minister in another and higher Sphere, promoted Draining more effectually, done more real Service to the *North Level* and *Fenns* adjoining, than probably has been done, or even attempted to be done, by all the other Ministers, since that Government had a Being.

BUT this, far from allaying, would, by an evident Partiality, mightily inflame the Imputation of Injustice, should I pass by in Silence, a Scheme for Draining the aforesaid *Level*, proposed by that able and experienc'd Engineer Captain *Perry*; which is, To reclaim the Waters from their unsteady wandering Course, over the great Flat of ever-varying Sands, and carry them directly to the Sea, in a bounded Channel, close under the *Lincolnshire* or Western Shore,

with Sluices for Scours, to be placed across such Channel, at proper Distances, from the lower End of the same, as far up as *Guyhorn*, Four Miles above *Wisbech*. The Particulars of this noble Design may be seen in that Gentleman's Report, Printed in the Year 1727, and thither I refer the careful and judicious Reader.

BUT if the Method of Scouring or Deepening a Channel by Sluices, is by no Means to be rejected ; as in a violent Disease, the first Remedy that offers is to be applied, without staying till another more effectual can be obtain'd ; it ought not, however, to be depended on, for an absolute and perfect Cure : For it cannot well be imagin'd, that the precarious short-liv'd Force of these artificial Scours, is equal to the continued Pressure and Weight of a full flowing River, supported within Banks, and tending with all its Might and Power to the Outfall. And if this be the Case, as most unquestionably it is, then that Power,
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as I before observ'd, being taken away, and not succeeded by any Thing equivalent to it, the Malady still remains, and, without Doubt, will prevail again, notwithstanding any inferior Means that may be used to suppress it.

THUS you see, what is the true, and only Method, for securing a good Out-fall : Behold now, unveil'd, this great Mystery of Draining, which has, seemingly at least, so long puzzled and perplexed, that Part of Mankind, whose Genius, or whose Interest, has led them to the Study, of this low, but useful Science ! Contract your extravagant, wide, rambling Wash, or Receptacle, above described ; reduce it to a more reasonable Breadth ; to that, suppose, of the River *Thames* at *London-Bridge* ; which I should not allow neither, but in Condescension to some over-scrupulous Persons, who will, probably, be raising Objections, from the Difficulty of providing sufficient Banks, in Case of great and violent Floods. And indeed

deed, I do so far concur with them, as readily to admit, that this is not only difficult, but impossible to be done, without a pretty large Expence, a Circumstance, which this Scheme, does not pretend to disown, and of which, possibly, I may say more hereafter. But to quit this unpleasing Theme of Expence, and return to my Subject: Here is a Receptacle proposed for the Floods to assemble in, not as now, dispers'd and scatter'd over a great Part of the Country, but united and join'd together, in a deep and well compacted Body, moving on with a resolv'd, uniform Pace, towards their Outlet at Sea: By which Means, not only the Channel there, would, on a sudden, become infinitely deeper, than now it is; but likewise the Receptacle above *Wisbeck*, no longer that broad, shallow, and useless Wash, would be surprizingly improv'd and deepen'd, by the Weight of so vast a Body of Water, the whole, from Top to Bottom, at once rolling on, with a Motion, swift and universal.

universal. This deep and capacious River would afford a noble Outfall, not only to the Waters of the North Level, and a Part of *Lincolnshire*, call'd *South-Holland*; but to those also of the Middle Level, on the opposite Side of the same River, and, which formerly had their Course by *Nene* to the same Outfall at *Wisbech*. And here, I will be bold to say, that, should this Proposal of Reducing, or Converting the wide, disproportion'd Wash, into a sufficient River, come once to take Place, and ripen into Execution, the Port of *Wisbech*, as decay'd and ruinous as, at this Juncture, it most undoubtedly is, would then, in a very short Time, be found to exceed all the other Ports, very few excepted, in the whole Island of *Great-Britain*.

THAT all this, and much more, may, with the highest Justice, be ascrib'd to such an Undertaking, as is here proposed and recommended, I challenge any, the warmest Lover of Opposition that has any remaining Spark of Shame or Reason in him, to deny. Who then,
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in his Senses, can be shock'd at the Expence, great, I confess, in it self, but infinitely mean and trifling, with respect to the vast and diffusive Advantages that will certainly flow from it, and with regard to the Multitude of Land-Owners, who, according to the Benefit they receive, ought to sustain a just Share and Proportion of the Charge? Besides the abundant Contribution due, from the Town of *Wisbeck* in particular, on the Score of Navigation. I may also mention an Advantage, which will more immediately result from the Work it self, namely, the recovering some Thousands of Acres, part of the ravenous and wide devouring *Wash*, which, on this Reduction, will become dry and certain Land.

It may now, perhaps, be expected, I should offer some Estimate both of the Expence of this Work, and of the Number of Acres that may reap Benefit therefrom : But as these are Points I am not sufficiently instructed in, and having, I hope,

hope, unanswerably prov'd what I principally intended, the Necessity of the Work, let the Expence be what it will, I ought to sit down satisfied with the Reputation of Truth, and not risque it so soon on the unfaithful Ground of Probability and Conjecture. However, to be a little more particular, and to gratify, in some measure, a Curiosity natural enough, to such as will probably be the Readers of this Essay; I will venture to give them my Opinion of this Matter, which is, That about Three Hundred Thousand Acres may be drain'd for about Thirty Thousand Pounds.

AND here it will be convenient to observe, that the Cost of such an Undertaking would be much more considerable, but for the particular Regard which lately has been shewn to a Bank, belonging to the said Receptacle, call'd the *North Bank*, rais'd, some few Months since, from a Condition miserably low and weak, to a Height and

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Substance

Substance little inferior to what may be necessary on Narrowing the said Receptacle or Wash, to such more reasonable Dimension, as I have, in general, proposed. This fortunate Bank owes its sudden Rise and Distinction, to the powerful Assistance of two noble Lords, his Grace the Duke of *Bedford*, and the Right Honourable the late Earl of *Lincoln*, who have lent the Sinews necessary to this great Work, on the Credit of the Draining Taxes, issuing out of Lands lying in the *North Level*; which *Level* the said Bank, is intended to preserve, against the daring and insolent Attacks of the Upland Floods: For these, as I have before shewn, ranging at large over the Wash, so wild, so extended, exposed to the utmost Fury of the Winds, bank'd, it must be confess'd, every Way, but effectually only to the Sea, and to the Hill-Country, have often, with ungovern'd Pride and Arrogance, scorning the paltry Opposition of a low and trifling Bank, invaded and dreadfully laid

laid waste, the *Level* on this, or the other Side ; and have, this last Year, fallen very signally on the North Level, from two successive Breaches of the Bank, near a Place call'd, the *Dog and Doublet Sluice*.

BUT besides the Circumstance of Security, which is now so eminently acquir'd, by this new Bank, it ought moreover to be acknowledged, that some Advantage will accrue to the Draining in particular, from an Occasion thence taken, to form a considerable Channel, carried on at the same Time, on the *Wash* Side of the Bank, which will give a better Current to the Floods there, and will consequently have a better, tho', I fear, very deficient Effect, upon the Outfall.

I cannot yet dismiss the Subject of the *North Bank*, without paying a further and just Acknowledgment to the Merit and Services of the incomparable Mr. *Smith*, which, in this Instance too,

have so remarkably display'd themselves ; since to him must be ascribed the Proposal, to him the Disposition and Digestion, of this useful but costly Undertaking : And to his excellent Conduct it is likewise owing, that the Work has hitherto proceeded with such uncommon Expedition and Success; being, at this Time, advanc'd not less than Eight Miles, thro' the most difficult and important Parts of it ; what little remains will quickly be accomplish'd, as soon as the Season will permit.

And now, after all, is it not a Thousand Pities, that such noble and generous Endeavours should, upon the whole Matter, and in the last Issue and Result of Things, prove of none, or but very slender, Avail ; as most certainly they will, unless so glorious an Example should happily infuse such an unusual Life and Spirit, into the whole Country thereabouts, as to engage them, one and all, in the unanimous Pursuit of that supreme and only Method, that of Contract-
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ing the Receptacle, and thereby giving the due Course and Weight to the descending Floods; without which sole and indispensable Remedy, give me leave to repeat once more the Melancholy Truth, The still increasing Sands will sooner or later, gain a decisive and compleat Victory over the yielded Outfall, and sink the *Fenns* into Wretchedness and Ruin everlasting. But, setting aside the true unrelenting *Fenman*, it were unkind to leave my more gentle Reader, with Impressions so full of Horror and Dismay; and therefore I shall, in Conclusion, present to his View, the beautiful and engaging Face of these *Fenns*, as they stood in ancient Days, before the Expedient of Draining without Banks and Rivers was so much as thought of. Of these *Fenns*, *William of Malmsbury* gives the charming Description, which here follows:

“ This Place is the very Picture of
 “ Paradise, for Pleasantness resembling
 “ Heaven it self: Amidst the very
 “ Marshes,

“ Marshes, fruitful in Trees, whose
 “ strait tapering Tallness mounts up to
 “ the Skies ; a Plain, smooth as Water,
 “ allures your Eyes with the most plea-
 “ sing Green, where is no Rub to check
 “ the swiftest Pace. There is not an
 “ Inch of Ground uncultivated ; here,
 “ a Place, swelling with Apple Trees,
 “ and there a Field overspread with
 “ Vines, either creeping upon the
 “ Ground, or supported with Poles. A
 “ mutual Strife there is between Nature
 “ and Art, that one may always supply
 “ what the other forgets. What shall
 “ I say of the Beauty of the Buildings,
 “ much to be admir’d, if it were only
 “ for the *Fenns* making such solid and
 “ unshaken Foundations? ” I know
 not if I should drop the Description
 here, or proceed and finish the Whole ;
 since, towards the Close of it, my Au-
 thor is pleased to maintain a Particular,
 which, in my humble Opinion, is one
 of the worst Commendations of his Pa-
 radise that could possibly enter into the
 Mind of Man : However, after this
 ingenious

ingenious Confession and Acknowledgment, it is presumed no great Offence will be taken. He goes on to say,
 “ It is a wonderful solitary and retired
 “ Place, fit for Monks, as making them
 “ more mindful of heavenly Things,
 “ and more mortified to Things below.
 “ It is a Prodigy to see a Woman here;
 “ but when a Man comes, he is welcomed like an Angel. So that I may
 “ truly call this Isle, a Lodge of Chastity, an Harbour of Honesty, and a
 “ School of Divine Philosophy.

December 16.

1728.

F I N I S.



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A MAP
of the
NORTH LEVEL
&c. and of the Marshes. a DRAIN
is propos'd to be made through to convey
the Waters that now overflow y^e. LEVEL
&c. to SEA.

To which are added Some Particulars
explaining Capt. Perry's Report, on his view
lately taken of the Drains, Sluces, & Outfalls.



